

**REMARKS****Status of the Claims***Pending Claims*

Claims 1, 14, 15, 29, 33, 35, 40, 42-45, 48, 49, 51, 54, 56, 58, 87, 106, 107, 111, 113, 116, 138, 143, 174, 175, 177, 182, 184, 187-190, 192, 203-208, and 215-231 are pending. Claims 42, 51, 54, 56, 58, 106, 107, 111, 113, 116, 138, 143, 174, 175, 177, 182, 184, 187, 190, 208, 215, 216, 219-224, and 229-231 are withdrawn from consideration as being drawn to a non-elected invention.

*Claims canceled in the instant amendment*

Claim 29 and 40 are canceled without prejudice or disclaimer. Accordingly, after entry of the instant amendment, claims 1, 14, 15, 33, 35, 43-45, 48, 49, 87, 188-189, 207, and 217-218, and 225-228 will be pending and under examination.

*Outstanding Rejections*

Claims 1, 14, 15, 29, 35, 43-45, 48, 49, 87, 188, 217, 218, and 225-228 are rejected under 35 U.S.C 112, first paragraph, written description and enablement. Claims 33, 87, 207, and 225 are rejected under 35 U.S.C. 112, second paragraph. Claims 40 and 189 are rejected under 35 U.S.C. 102(b).

Applicants respectfully traverse all outstanding rejections of the claims.

**Support for the Claim Amendments**

The specification sets forth an extensive description of the invention in the amended claims. Accordingly, Applicants respectfully submit that no new matter is introduced by the instant amendment.

Claim Objections

Claims 33, 35, 218 and 225-227 are objected to for reasons set forth in detail on pages 2-3 of the OA. The instant amendment addresses this issue. Therefore, the claim objections may be properly withdrawn.

Claim Rejections – 35 USC §112, first paragraph, written description and enablement

Claims 1, 14, 15, 29, 35, 43-45, 48, 49, 87, 188, 217, 218, and 225-228 are rejected under 35 U.S.C 112, first paragraph, as failing to comply with the written description and enablement requirements, as set forth in detail on pages 3-9 of the OA.

The instant amendment addresses this issue. For example, the Office was concerned about the scope of the genus of polynucleotides encoding fluorescent proteins and having 95% identity to SEQ ID NO:29. To address the Examiner's concerns, the scope of the claims, as amended, is directed to a genus of polynucleotides having at least 97% identity to the nucleic acid sequence of SEQ ID NO:29, wherein the nucleic acid encodes a fluorescent polypeptide.

Accordingly, Applicants respectfully submit that the rejection under 35 U.S.C 112, first paragraph can be properly withdrawn.

35 USC §112, second paragraph

Claims 33, 87, 207 and 225 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention, as set forth in detail on pages 9-10 of the OA.

The instant amendment addresses this issue. Therefore, Applicants respectfully submit that the rejection under 35 USC 112, second paragraph can be properly withdrawn.

35 USC §102(b)

Claims 40 and 189 are rejected under 35 USC 102(b) as being anticipated by the Dean *et al.* and Tsien *et al.* references, respectively.

The instant amendment addresses these issues. Claim 40 has been canceled without prejudice or disclaimer. Claim 189 has been amended to recite "An isolated,

synthetic, or recombinant nucleic acid comprising the sequence set forth in SEQ ID NO:29.” As the Examiner noted on page 11 of the OA, this amendment obviates the present rejection under 35 USC 102(b).

Therefore, Applicants respectfully request that the rejection be withdrawn.

**CONCLUSION**

In view of the foregoing amendment and remarks, Applicants respectfully submit that the Examiner can properly withdraw the claim objections and the rejection of pending claims under 35 U.S.C. §112, first and second paragraphs and 35 U.S.C. §102(b). In view of the above, claims in this application after entry of the instant amendment are believed to be in condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejections of the claims and to pass this application to issue.

In the event the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 50-0661 referencing docket no. **D1410-2US**. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at (858)526-0376.

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Respectfully submitted,

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